

CLAIMS

1. A thermoelectric material having an average crystal particle size of at most 50 nm and having a relative density of at least 85 %.

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2. The thermoelectric material according to claim 1, wherein an EDS analysis of a grain boundary portion of said thermoelectric material shows that impurity elements have a detected intensity of at most one-fifth of a maximum detected intensity of an element among constituent elements of said thermoelectric material.

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3. The thermoelectric material according to claim 1, wherein said thermoelectric material has an electrical resistivity of at most $1 \times 10^{-3} \Omega\text{m}$.

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4. The thermoelectric material according to claim 1, wherein said thermoelectric material has a thermal conductivity of at most 5 W/mK.

5. The thermoelectric material according to claim 1, wherein said thermoelectric material has a thermal conductivity of at most 1 W/mK.

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6. A method of manufacturing a thermoelectric material comprising the steps of:

preparing a fine powder; and

sintering or compacting said fine powder under a pressure of at least 1.0 GPa

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and at most 10 GPa.

7. The method of manufacturing a thermoelectric material according to claim 6, further comprising the step of annealing polycrystalline body resultant from said sintering or compacting step.